

**PATENT COOPERATION TREATY**  
**PCT**  
**INTERNATIONAL SEARCH REPORT**  
(PCT Article 18 and Rules 43 and 44)

284502000800  
Serial# NOT YET ASSIGNED

Applicant's or agent's file reference <b>10104SG224</b>	<b>FOR FURTHER ACTION</b> see Form PCT/ISA/220 as well as, where applicable, item 5 below.	
International application No. <b>PCT/SG2004/000317</b>	International filing date ( <i>day/month/year</i> ) <b>29 September 2004</b>	(Earliest) Priority Date ( <i>day/month/year</i> ) <b>3 October 2003</b>
Applicant <b>NATIONAL UNIVERSITY OF SINGAPORE et al</b>		

This international search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of **3** sheets.

☐ It is also accompanied by a copy of each prior art document cited in this report.

**1. Basis of the report**

a. With regard to the language, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ The international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

b. ☐ With regard to any nucleotide and/or amino acid sequence disclosed in the international application, see Box No. I.

2. ☐ Certain claims were found unsearchable (See Box No. II).

3. ☐ Unity of invention is lacking (See Box No. III).

4. With regard to the title,

☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:

5. With regard to the abstract,

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. With regard to the drawings,

a. the figure of the drawings to be published with the abstract is Figure No. **1**

☒ as suggested by the applicant.

☐ as selected by this Authority, because the applicant failed to suggest a figure.

☐ as selected by this Authority, because this figure better characterizes the invention.

b. ☐ none of the figures is to be published with the abstract.

## INTERNATIONAL SEARCH REPORT

International application No.  
PCT/SG2004/000317

## A. CLASSIFICATION OF SUBJECT MATTER

Int. Cl. 7: C01B 3/04, 3/08, 6/04, 6/06, 21/00, 21/06

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC C01B 3/04, 3/08, 6/04, 6/06, 21/00, 21/06

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

DERWENT: WPAT and JAPIO: adsorb, absorb, desorb, desorption, releas, hydrogen, metal, stor, nitrid, imid, amid, lithium aluminium, lithium calcium, magnesium aluminium, magnesium sodium, magnesium calcium

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	WO 2003/050036 A1 (NANOMIX INC) 19 June 2003 Pages 5-6, Claims 1-42	1-24
A	WO 2003/018468 A1 (TECHNOLOGICAL RESOURCES PTY LTD) 6 March 2003 Claims 1-21	1-24
A	US 2003/0129126 A1 (PING CHEN ET AL) 10 July 2003 Pages 1-2, Claims 1-31	1-24
P, A	US 6814782 B2 (BORISLAV BOGDANOVIC ET AL) 9 November 2004 Pages 1-6	1-24

☐ Further documents are listed in the continuation of Box C☒ See patent family annex

* Special categories of cited documents:	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"A" document defining the general state of the art which is not considered to be of particular relevance	"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"E" earlier application or patent but published on or after the international filing date	"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"&" document member of the same patent family
"O" document referring to an oral disclosure, use, exhibition or other means	
"P" document published prior to the international filing date but later than the priority date claimed	

Date of the actual completion of the international search  
24 November 2004

Date of mailing of the international search report

20 DEC 2004

Name and mailing address of the ISA/AU

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**INTERNATIONAL SEARCH REPORT**

Information on patent family members

International application No.

**PCT/SG2004/000317**

This Annex lists the known "A" publication level patent family members relating to the patent documents cited in the above-mentioned international search report. The Australian Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

Patent Document Cited in Search Report		Patent Family Member			
WO	03050036				
WO	03018468	EP	1441978		
US	20030129126				
US	6814782	CA	2403403	DE	10012794
		US	2003053948	WO	0168515
				EP	1263676

Due to data integration issues this family listing may not include 10 digit Australian applications filed since May 2001.

**END OF ANNEX**